

**REMARKS**

Claims 3, 9, 10, 17, 26, 28, 29 and 34-37 have been amended and claims 38-41 have been added. Claims 1-41 are pending in the application. Claims 3, 9, 10, 29 and 34-37 are indicated (Summary; p. 14, item 10) to contain allowable subject matter. Reconsideration of the application is requested in view of the amendments and the remarks to follow.

The amendment to the specification addresses concerns noted in the Office Action (page 2, item 1, Specification). No new matter is added by the amendments to the specification.

New claims 38-41 are supported at least by text appearing at p. 5, line 21 through p. 14, line 2 of the application as originally filed. No new matter is added by new claims 38-41. New claims 38-41 distinguish over the art of record and are allowable.

**Allowable Subject Matter:**

Claims 3, 9, 10, 29 and 34-37 are stated to be allowable if rewritten in independent form and to include the recitation of the base claim and any intervening claims. Claims 3, 9, 10, 19 and 34-37 have been so re-written and thus are allowable.

**Rejection under 35 U.S.C. §112**

Claims 11 and 17 stand rejected under 35 U.S.C. 112 as being indefinite. The Examiner indicates (p. 3) that, with respect to claim 11, the Examiner is unable to determine what the Applicant is claiming in regards to what type of data is being recorded and what is generating that particular data.

Claim 11 depends from claim 1. Claim 1 recites "recording server cluster data during operation of the server cluster, at least some of the server cluster data indicating server resource parameter values", which clause provides antecedence for the recitation of claim 11. Applicant is unable to understand how claim 1 could provide understanding of such data while claim 11, in referring back to such data, would cause confusion. Clarification is requested.

The Examiner also indicates (p. 3) that, with respect to claim 17, the Examiner is unable to determine what "... general server utilization the method further comprising:" claims. Claim 17 has been amended in response to the concerns noted in the Office Action.

**Rejection under 35 U.S.C. §103:**

Claims 1, 2, 4-8, 12-16, 18-28 and 30-33 stand variously rejected under 35 U.S.C. 35 U.S.C. §103(a) over various combinations of U.S. Patent No. 5,668,995 to Bhat (hereinafter "Bhat"), U.S. Patent No. 6,108,800 to Asawa (hereinafter "Asawa"), U.S. Patent No. 5,838,919 to Schwaller et al. (hereinafter "Schwaller"), U.S. Patent No. 6,209,033 to Datta et al. (hereinafter "Datta") or "NETCAP: A Tool For The Capacity Planning Of Ethernet LANS" by L. Vekiarides et al. (hereinafter "Vekiarides"). Applicant respectfully submits that claims 1, 2, 4-8, 12-16, 18-28 and 30-33 are not unpatentable over the cited references and requests reconsideration.

In traversing the rejection, it is helpful to first review the teachings of the references being applied.

Bhat is directed (Abstract) to "A computer-implemented capacity planning system for multiprocessor computer systems used in client/server environments. The capacity planning system provides a correctly sized and configured computer system in response to user specified requirements. The user specified requirements comprise workload parameters. The generated output from the capacity planning generally comprises a recommended multiprocessor computer system, the number of processors needed in the system, the amount of memory required, and the configuration of a disk subsystem suitable for the system, including the number of disk drives, the size of each of the disk drives, and how they should be configured for best performance. The generated output from the capacity planning system further comprises a list price, discounted price, maintenance costs and price/performance indicator for the identified computer

system configuration. The capacity planning system can also generate output describing probable system configurations and pricing from other vendors to provide a competitive analysis for the user. The output also includes the average response time performance of the configured system for the specified workload, a summary of the resource utilization, and a bottleneck analysis."

Asawa is directed (Abstract) to "A method and apparatus for analyzing the performance of an information system which provides useful assessments of performance that apply to an aggregate of user nodes in the information system. The method and apparatus may be embodied in a performance analyzer which bases an assessment of the performance of the information system on a set of measurements of a performance parameter for each of the user nodes. The measurements in raw form apply to individual ones of the user nodes. The performance analyzer determines a set of filtered measurements by removing at least one type of variability in the measurements. The performance analyzer then determines a representative performance indication in response to the filtered measurements such that the representative performance indication applies to an aggregate of the user nodes. Information system operators are provided with indications of confidence in the applicability of filtered measurements to the aggregate of user nodes and are provided with alarms that are weighted by the indications of confidence."

Schwaller is directed (Title) to "Methods, systems and computer program products for endpoint pair based communications network performance testing" whereby (Abstract) to "Communications network performance is tested utilizing a test scenario simulating actual communications traffic on the network to be tested.

The test scenario includes an endpoint node specific test protocol between an endpoint node pair including a first and associated second endpoint node on the network to be tested. A partner endpoint node test protocol is determined from the endpoint node specific test protocol and communicated to from the first endpoint node to the associated second endpoint node of the endpoint node pair. A plurality of endpoint node pairs may executed different endpoint node specific test protocols under a test scenario. A console node is provided on the network for establishing the test scenario and assigning the test scenario to endpoint node pairs and initiating execution of the test scenario. Performance data may be monitored at one of the endpoint nodes of each endpoint node pair and reported to the console node either as it is generated or after completion of the test."

Datta is directed (Title) to "Apparatus and method for network capacity evaluation and planning" whereby (Abstract) "Network capacity evaluation and planning is performed based upon the traffic across the links of the network. Once a link's traffic volume has been measured, it is compared with the link's traffic capability, and the resulting parameters compared with the traffic and capability of other links of the network to create measures of network capacity and balance. Then, simulated changes to the network configuration may be made by substituting simulated traffic volume amounts and capabilities for selected link traffic measurements and capabilities, and the resulting measures of network capacity and balance may then be compared to determine whether the simulated changes represent a preferred network configuration."

In contrast to Bhat and Asawa, claim 1 recites "A method for deriving server resource utilization estimates for a server cluster, the method comprising:

recording server cluster data during operation of the server cluster, at least some of the server cluster data indicating server resource parameter values; using a load simulation tool that, using the recorded data, determines a maximum load that can be handled by the server cluster; specifying a load to be handled by the server cluster; and deriving server resource utilization estimates corresponding to the specified load", which is not taught, disclosed, suggested or motivated by the cited references.

Bhat does not address "recording server cluster data during operation of the server cluster", as recited in claim 1. Bhat is concerned with projecting or planning server capacity requirements for a server in response to client needs input by that prospective client (see, e.g., col. 1, line 51 et seq.; "Prompt For User Specifications", element 26, Fig. 2A; col. 3, lines 25-32, esp. 29), and providing pricing estimates for a server. Bhat is silent with respect to recording server cluster data, doing so during operation, or, for that matter, server clusters. In fact, Bhat is void of the terms "recording" or "storing", and is also void of the term "cluster".

Asawa fails to cure these deficiencies. Asawa uses the term "cluster" exclusively in the context of data clusters and analysis of data having data clusters therein (see, e.g., col. 9, lines 12-15, describing clustering of data points within a measurement interval). Asawa describes a server 14 (col. 1, line 36) serving a plurality of user nodes 20-24 and describes recording data "that apply to the individual user nodes 20-24" (lines 56-57).

Claim 26 recites "A simulation tool for use in determining server resource utilization estimates in a server cluster, the load simulation tool comprising: a user

interface configured to receive data input from a user; at least one filter or monitor configured to record operational data from one or more of the servers in the server cluster; the simulation tool being configured to create a test script from the recorded data and the received data, and to run the test script from a master client connected to the server cluster to simulate load and other server conditions that existed when the operational data was recorded; and the user interface being further configured to display utilization of server resources during the running of the test script", which is not taught, disclosed, suggested or motivated by the cited references, alone or in any proper combination.

As noted above, Asawa does not disclose or describe any server cluster or anything related to a server cluster. As noted in the Office Action (p. 10), Schwaller also fails to describe any server cluster or anything related to a server cluster. As a result, it is inconceivable that combining or modifying the teachings of these references could provide the subject matter recited in claim 26.

Claim 28 recites "A system, comprising: a server cluster having a primary server that controls the operation of the server cluster; a cluster controller resident in memory on the primary server of the server cluster, the cluster controller controlling communications between the primary server and secondary servers, if any, and between clients and the server cluster; an operating system resident in the memory of the primary server; a communications program within the cluster controller to provide communications capability for the system; a filter to collect server data indicating certain operating parameters for the server cluster; a monitor on each server in the server cluster to collect server data indicating certain operating parameters for the server cluster; a user interface to collect data input by

a user; a capacity planner within the cluster controller configured to utilize the collected data to derive one or more server resource utilization estimates for server resources to determine how handling a specified load will affect the utilization of the server resources, and to produce a plan recommending changes to be made to the server cluster to adequately accommodate the specified load; and a load simulation tool configured to use the collected data to create a simulation script that, when run on a master client, simulates the operation of the server cluster system to allow the user to find the maximum load that the server cluster can handle; and wherein the maximum load obtained through the use of the load simulation tool is utilized in the derivation of the one or more server resource utilization estimates", which is not taught, disclosed, suggested or motivated by the cited references, alone or in any proper combination.

As noted above, Bhat is silent with respect to server clusters. Bhat also is silent with respect to any primary server, secondary server or cluster controller. Asawa does not cure these deficiencies, with or without Schwaller. As a result, the cited references fail to provide the subject matter recited in claim 28.

The rejection of claims 1, 2, 4-8, 12-16, 18-28 and 30-33 does not meet the standards for an unpatentability rejection set forth at MPEP §2143, entitled "Basic Requirements of a Prima Facie Case of Obviousness" (see also MPEP §706.02(j)).

This MPEP section states that "To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to



combine reference teachings." No motivation or guidance has been identified in the references by the Office Action to modify the disclosure of the reference.

This MPEP section also states that "Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations." None of the references disclose or describe any server cluster or anything to do with any server cluster. It is inconceivable that combining the teachings of the references could provide the subject matter recited in any of Applicant's independent claims 1, 26 or 28.

As noted above, the references are directed to different problems having different parameters and requiring different solutions. As such, there is no guidance in the references to teach one of ordinary skill which elements to choose or how to combine them and thus there can be no reasonable expectation of success.

This MPEP section further states that "The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)."

This requirement is also described in MPEP §2143.01, entitled "Suggestion or Motivation To Modify the References." This MPEP portion includes a subsection stating that "THE PRIOR ART MUST SUGGEST THE DESIRABILITY OF THE CLAIMED INVENTION". There is no identification in the Office Action of how the references might be modified or combined to arrive at the subject matter of any of claims 1, 26 or 28.

Inasmuch as the references fail to provide the subject matter of any of independent claims 1, 26 and 28, and are directed to completely different problems, it is inconceivable that they could suggest the desirability of this subject matter. As a result, the rejection fails to meet the test set forth in the MPEP for a *prima facie* finding of unpatentability.

Furthermore, because there is and can be no motivation to combine and modify the teachings of the references as described in the Office Action, the rejection must be hindsight reconstruction based on Applicants' own disclosure, employing an "obvious to try" standard of unpatentability.

The Examiner is reminded that hindsight reconstruction is not an appropriate basis for a §103 rejection. (See, e.g., *Interconnect Planning Corp. v. Feil*, 227 USPQ 543, 551 (Fed. Cir. 1985); *In re Mills*, 16 USPQ2d 1430 (Fed. Cir. 1990) (explaining that hindsight reconstruction is an improper basis for rejection of a claim).)

The suggestion to modify and combine as put forth in the Office Action employs an improper "obvious to try" rationale, as is discussed below in more detail with reference to MPEP §2145(X)(B). This MPEP section states that:

The admonition that 'obvious to try' is not the standard under §103 has been directed mainly at two kinds of error. In some cases, what would have been 'obvious to try' would have been to vary all parameters or try each of numerous possible choices until one possibly arrived at a successful result, where the prior art gave either no indication of which parameters were critical or no direction as to which of many possible choices is likely to be successful.... In others, what was 'obvious to try' was to explore a new technology or general approach that seemed to be a promising field of experimentation, where the prior art gave only general guidance as to the particular form of the claimed invention or how to achieve it.

*In re O'Farrell*, 853 F.2d 894, 903, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988) (citations omitted).

No guidance has been identified within the reference to determine which elements to pick or choose from the reference, or of how to couple them to somehow arrive at subject matter such as is claimed (see also discussion of MPEP §2143 *infra*).

Additionally, no evidence has been provided as to why it would be obvious to modify and/or combine the teachings of these references. Evidence of a suggestion to modify or combine may flow from the prior art references themselves, from the knowledge of one skilled in the art, or from the nature of the problem to be solved. However, this range of sources does not diminish the requirement for actual evidence. Further, the showing must be clear and particular. See *In re Dembiczak*, 175 F.3d 994, 998 (Fed. Cir. 1999).

Dependent claims 2, 4-8, 12-16, 18-25, 27 and 30-33 distinguish by virtue of dependence from allowable claims and for their own recited features which are neither taught nor disclosed by the cited references.

For at least these reasons, Applicant respectfully requests that the §103 rejections be withdrawn, and that Applicant's claims 1, 2, 4-8, 12-16, 18-28 and 30-33 be allowed.

**Conclusion**

Claims 1-41 are in condition for allowance. Applicant respectfully requests reconsideration and issuance of the subject application. Should any matter in this case remain unresolved, the undersigned attorney respectfully requests a telephone conference with the Examiner to resolve any such outstanding matter.

Respectfully Submitted,

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